



MAN-MADE
FIBER AND
TEXTILE
DICTIONARY

CELANESE
CORPORATION

WORSTED SYSTEM: A system of textile processing for manufacturing spun yarns from staple fibers usually over 3 inches in length. The main operations are carding, combing, drafting, and spinning. There are three basic systems of worsted yarn spinning: the Bradford (or English system), the French (Alsatian or Continental system), and the American system.

WOVEN FABRIC: A fabric composed of two sets of yarns, warp and filling, and formed by weaving, which is the interlacing of these sets of yarns to form a fabric. There may be two or more warps and fillings in a fabric, depending on the complexity of the construction. The manner in which the two sets of yarns are interlaced determines the weave. By using various combinations of the three basic weaves, plain, twill, and satin, it is possible to produce an almost unlimited variety of constructions. Other effects may be obtained by varying the type of yarns, filament or spun, and the fiber types, twist levels, etc.

WRINKLE MARK: See SEAM MARK.

WRINKLE RECOVERY: That property of a fabric which enables it to recover from folding deformations.

WRINKLE RESISTANCE: That property of a fabric which enables it to resist the formation of wrinkles when subjected to a folding deformation. Wrinkle resistance in a fabric is a desirable attribute, but it is not easily measured quantitatively. Wrinkle resistance varies from quite low in many fabrics to very high in resilient fabrics. In order to form a wrinkle, a fabric's wrinkle resistance must be overcome. The fabric may, however, produce strains and store potential energy that can become evident as wrinkle recovery under suitable conditions.

WRONG COLOR PICK: See MISCOLOR PICK.

WRONG PICK: See MISPICK.

X

XANTHATING: A process in rayon manufacture in which carbon disulfide is reacted with alkali cellulose to produce bright orange cellulose xanthate.

XENON-ARC LAMP: A type of light source used in fading lamps. It is an electric discharge in an atmosphere of xenon gas at a little below atmospheric pressure, contained in a quartz tube.

Y

YARDAGE: The amount or length of a fabric expressed in yards.

YARD GOODS: Fabric sold on a retail basis by the running yard.

YARN: A generic term for a continuous strand of textile fibers, filaments, or material in a form suitable for knitting, weaving, or otherwise intertwining to form a textile fabric. Yarn occurs in the following forms:

(1) a nun
filaments
filaments
without
paper, pl
a textile

YARN C
yarns an
of a plie

YARN I
resulting

YARN J
the con
rovings

YARN
classes
density
and ma
recipro
system
COTT

YARN
or corr

YARN
with re
quality

YARN
YELL

acetat
coeffi
transi

YIEL
or ya
fabric

YOU
ratio
mate
unit
origi
to st
belo

WORSTED SYSTEM: A system of textile processing for manufacturing yarns from staple fibers usually over 3 inches in length. The main operations are carding, combing, drafting, and spinning. There are three systems of worsted yarn spinning: the Bradford (or English system), the French (Alsatian or Continental system), and the American system.

WEAVEN FABRIC: A fabric composed of two sets of yarns, warp and weft, and formed by weaving, which is the interlacing of these sets of yarns to form a fabric. There may be two or more warps and fillings in a fabric, depending on the complexity of the construction. The manner in which the two sets of yarns are interlaced determines the weave. By various combinations of the three basic weaves, plain, twill, and satin, it is possible to produce an almost unlimited variety of constructions. Other effects may be obtained by varying the type of yarns, count or spun, and the fiber types, twist levels, etc.

WELKLE MARK: See SEAM MARK.

WELKLE RECOVERY: That property of a fabric which enables it to recover from folding deformations.

WELKLE RESISTANCE: That property of a fabric which enables it to withstand the formation of wrinkles when subjected to a folding deformation. Wrinkle resistance in a fabric is a desirable attribute, but it is not easily measured quantitatively. Wrinkle resistance varies from quite low in fabrics to very high in resilient fabrics. In order to form a wrinkle, a fabric must be stretched and stored potential energy that can become evident as recovery under suitable conditions.

WING COLOR PICK: See MIXED END or FILLING.

WING PICK: See MISPICK.

X

XATING: A process in rayon manufacture in which carbon dioxide is reacted with alkali cellulose to produce bright orange xanthate.

X-ARC LAMP: A type of light source used in fading lamps. It is an electric discharge in an atmosphere of xenon gas at a little below atmospheric pressure, contained in a quartz tube.

Y

YARDAGE: The amount or length of a fabric expressed in yards.

GOODS: Fabric sold on a retail basis by the running yard.

A generic term for a continuous strand of textile fibers, filaments, or yarn in a form suitable for knitting, weaving, or otherwise combining to form a textile fabric. Yarn occurs in the following forms:

(1) a number of fibers twisted together (spun yarn), (2) a number of filaments laid together without twist (a zero-twist yarn), (3) a number of filaments laid together with a degree of twist, (4) a single filament with or without twist (a monofilament), or (5) a narrow strip of material, such as paper, plastic film, or metal foil, with or without twist, intended for use in a textile construction.

YARN CONSTRUCTION: A term used to indicate the number of single yarns and the number of strands combined to form each successive unit of a plied yarn or cord.

YARN DYEING: See DYEING.

YARN DYEING DIFFERENCES: Variations in take-up of dyes by yarns, resulting in streaks in finished fabrics.

YARN INTERMEDIATE: A generic term for products obtained during the conversion of fibers to yarns, including card webs, laps, slivers, rovings, and tops.

YARN NUMBER: A relative measure of the fineness of yarns. Two classes of systems are in use: (1) Direct yarn number (equal to linear density) is the mass per unit length of yarn. This system is used for silk and man-made filament yarns. (2) Indirect yarn number (equal to the reciprocal of linear density) is the length per unit mass of yarn. This system is used for cotton, linen, and wool-type spun yarns. (Also see COTTON COUNT.)

YARN NUMBER, EQUIVALENT SINGLE: The number of a plied yarn or cord determined by the standard methods used for single yarns.

YARN QUALITY: Various grades of yarn designated by the producer with respect to performance characteristics, e.g., first quality, second quality, etc.

YARN VARIATION: See RING.

YELLOWNESS COEFFICIENT: Measure of the color of a molded acetate disc or dope solution. $C_y = \frac{1 - T_{4400}}{T_{6400}}$ where C_y is the yellowness coefficient; T_{4400} is the transmission at 4400\AA (blue); and T_{6400} is the transmission at 6400\AA (orange).

YIELD: 1. Number of linear or square yards of fabric per pound of fiber or yarn. 2. The number of finished square yards per pound of greige fabric.

YOUNG'S MODULUS: A property of perfectly elastic materials, it is the ratio of change in stress to change in strain within the elastic limits of the material. The ratio is calculated from the stress expressed in force per unit cross-sectional area, and the strain expressed as a fraction of the original length. Modulus so calculated is equivalent to the force required to strain the sample 100% of its original length, at the rate prevailing below the elastic limit.

BEST AVAILABLE COPY